What Is Claimed Is:

1. An isolated nucleic acid molecule, comprising:

(a) a sequence that encodes SEQ ID NO:2, SEQ ID NO:5, SEQ ID NO:7, or SEQ ID NO:23;

(b) the coding region of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:22;

(c) a nucleotide sequence that encodes a protein involved in the signal transduction cascade leading to systemic acquired resistance in plants, wherein said nucleotide sequence comprises a 20 consecutive base pair nucleotide portion identical in sequence to a 20 consecutive base pair portion of the coding region of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:22; or

(d) a nucleotide sequence that encodes a protein involved in the signal transduction cascade leading to systemic acquired resistance in plants, wherein said nucleotide sequence can be amplified from total cellular DNA from a plant using the polymerase chain reaction with the primers set forth as SEQ ID NO:20 and SEQ ID NO:21.

2. An isolated nucleic acid molecule according to claim 1, comprising a sequence that encodes SEQ ID NO:2, SEQ ID NO:5, SEQ ID NO:7, or SEQ ID NO:23.

3. An isolated nucleic acid molecule according to claim 1, comprising the coding region of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:22.

4. An isolated nucleic acid molecule according to claim 1, comprising a 20 consecutive base pair nucleotide portion identical in sequence to a 20 consecutive base pair nucleotide portion of the coding region of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:22.

5. An isolated nucleic acid molecule according to claim 1, comprising a nucleotide sequence that encodes a protein involved in the signal transduction cascade leading to systemic

acquired resistance in plants, wherein said nucleotide sequence can be amplified from total cellular DNA from a plant using the polymerase chain reaction with the primers set forth as SEQ ID NO:20 and SEQ ID NO:21.

6. A chimeric gene comprising a promoter active in plants operatively linked to the nucleic acid molecule of claim 1.

7. A recombinant vector comprising the chimeric gene of claim 6.

8. A transgenic host cell comprising the chimeric gene of claim 6.

9. A transgenic host cell according to claim 8, which is a transgenic plant cell.

10. A transgenic plant comprising the transgenic plant cell of claim 9.

11. The transgenic plant of claim 10, which is selected from the group consisting of: rice, wheat, barley, rye, rape, corn, potato, carrot, sweet potato, sugar beet, bean, pea, chicory, lettuce, cabbage, cauliflower, broccoli, turnip, radish, spinach, asparagus, onion, garlic, eggplant, pepper, celery, squash, pumpkin, cucumber, apple, pear, quince, melon, plum, cherry, peach, nectarine, apricot, strawberry, grape, raspberry, blackberry, pineapple, avocado, papaya, mango, banana, soybean, tobacco, tomato, sorghum, and sugarcane.

12. Seed from a transgenic plant according to claim 10.

13. A method of increasing SAR gene expression in a plant, comprising expressing the chimeric gene according to claim 6 in the plant.

14. A nucleic acid promoter fragment isolated from the 5' flanking region upstream of the nucleic acid molecule according to claim 1.

15. A nucleic acid promoter fragment according to claim 14, wherein said promoter fragment is isolated from the region upstream of nucleotide number 863 of SEQ ID NO:3.

16. A chimeric gene comprising a nucleic acid promoter fragment according to claim 14 operatively linked to a coding sequence of interest.

17. A recombinant vector comprising the chimeric gene of claim 16.

18. A transgenic host cell comprising the chimeric gene of claim 16.

19. A transgenic host cell according to claim 18, which is a transgenic plant cell.

20. A transgenic plant comprising the transgenic plant cell of claim 19.